amend the above-identified application without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

In the Claims:

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

1. (Previously Amended) A confocal microscope comprising:

at least one probe section insertable into a body for illuminating a region of interest thereof;

an imaging section generating illumination light, and constructing images from light remitted from the region of interest; and

at least one flexible incoherent optical coupling element for transmission of light between the imaging section and the probe section, whereby the confocal microscope is a remote probe for confocal imaging of tissue at locations within the body in place of an endoscope.

2. (Original) The microscope according to Claim 1 wherein said element is an incoherent fiber optic bundle.

3. (Original) The microscope according to Claim 2 wherein said imaging section comprises a line scanning means which scans across a proximal end of the element.

4. (Original) The microscope according to Claim 3 further comprising a slit aperture disposed in the path of light scanned by said means across said proximal end.

5. (Original) The microscope according to Claim 2 further comprising an objective lens at a distal end of said element for focusing a laser beam in said region.

6. (Previously Amended) A confocal microscope comprising:

at least one probe section insertable into a body having an objective lens;

a light manipulation section; and

C3 at least one fiber bundle coupling between the light manipulation section and the objective lens, wherein the fiber bundle scrambles light incident to said fiber bundle, whereby the confocal microscope is a remote probe for confocal imaging of tissue at locations within the body in place of an endoscope.

C4 7. (Original) The microscope according to Claim 6 wherein said fiber bundle has two ends and said microscope further comprises a confocal mask at one of said ends near said manipulating section of the fiber bundle to enhance confocality.

C5 8. (Previously Amended) The microscope according to claim 6 wherein the fiber bundle is not coherent in that spatial individual fibers at one of said ends of the bundle are scrambled relative to that at the other of said ends.

9. (Original) The microscope according to Claim 8 wherein said individual fibers are scrambled randomly.

C6 10. (Original) The microscope according to Claim 8 wherein said individual fibers are scrambled in a prescribed pattern.

11. (Original) The microscope according to Claim 6 wherein the incident light forms a line.

12. (Original) The microscope according to Claim 7 wherein said confocal mask is a slit.

13. (Original) The microscope according to Claim 6 wherein said fiber bundle has a distal end and light from the distal end of the fiber bundle is imaged by said objective lens onto a sample,

and remitted light from the sample is collected by said objective lens and coupled back into the fiber bundle.

14. (Original) The microscope according to Claim 6 in which each end of the fiber bundle is index matched via a window material to reduce reflection from fiber ends.

15. (Previously Amended) A method for decoding a scrambled image formed by an incoherent fiber bundle in a microscope insertable into a body comprising the steps of:

raster scanning a focused light spot onto a first end of the fiber bundle;

sequentially reading out a corresponding fiber at a second end of said bundle; and

constructing a map of the first and second ends, whereby an image formed by light remitted into the second end can be unscrambled by the mapped relationship of the first and second ends.

16. (Previously Amended) A method for decoding a scrambled image formed by a first incoherent fiber bundle in a microscope comprising the steps of:

raster scanning a focused light spot onto a first end of the first fiber bundle;

sequentially reading out the corresponding fiber at a second end of said bundle; and

decoding the scrambled image formed by said first fiber bundle with a second incoherent fiber bundle.

17. (Previously Amended) A method for decoding a scrambled image formed by an incoherent fiber bundle in a microscope insertable into a body comprising the steps of:

illuminating a first end of the incoherent fiber bundle with a coded line pattern;

imaging corresponding fibers at a second end of said bundle; and

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mapping of the first and second ends, whereby an image formed by light remitted into the second end can be unscrambled by a mapped relationship of the first and second ends.

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18. (Original) The method according to Claim 17 wherein said spatially coded pattern is a binary masked pattern.

19. (Previously Amended) A method for decoding a scrambled image formed by a first incoherent fiber bundle in a microscope comprising the steps of:

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illuminating a first end of a first incoherent fiber bundle with a coded line pattern;

imaging the corresponding fibers at a second end of said bundle; and

decoding the scrambled image formed by said first fiber bundle with a second incoherent fiber bundle.

20. (Previously Added) The method according to claim 16, wherein the microscope is insertable.

21. (Previously Added) The method according to claim 17, wherein the coded line pattern is spatially coded.

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22. (Previously Added) The method according to claim 17, wherein the coded line pattern is color-coded.

23. (Previously Added) The method according to claim 19, wherein the coded line pattern is spatially coded.

24. (Previously Added) The method according to claim 19, wherein the coded line pattern is color-coded.

25. (Previously Added) The method according to claim 19, wherein the microscope is insertable.

Please add the following new claims:

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26. (New) A confocal microscope comprising:

at least one probe section insertable into a subject for illuminating a region of interest thereof;

an imaging section generating illumination light, and constructing images from light remitted from the region of interest; and

at least one flexible incoherent optical coupling element for transmission of light between the imaging section and the probe section, whereby the confocal microscope is a remote probe for confocal imaging of tissue at locations within the subject in place of an endoscope.

27. (New) The microscope according to Claim 26 wherein said element is an incoherent fiber optic bundle.

28. (New) The microscope according to Claim 27 wherein said imaging section comprises a line scanning means which scans across a proximal end of the element.

29. (New) The microscope according to Claim 28 further comprising a slit aperture disposed in the path of light scanned by said means across said proximal end.

30. (New) The microscope according to Claim 27 further comprising an objective lens at a distal end of said element for focusing a laser beam in said region.

31. (New) A confocal microscope comprising:

at least one probe section insertable into a subject having an objective lens;

a light manipulation section; and

at least one fiber bundle coupling between the light manipulation section and the objective lens, wherein the fiber bundle scrambles light incident to said fiber bundle, whereby the confocal microscope is a remote probe for confocal imaging of tissue at locations within the subject in place of an endoscope.

32. (New) The microscope according to Claim 31 wherein said fiber bundle has two ends and said microscope further comprises a confocal mask at one of said ends near said manipulating section of the fiber bundle to enhance confocality.

33. (New) The microscope according to claim 31 wherein the fiber bundle is not coherent in that spatial individual fibers at one of said ends of the bundle are scrambled relative to that at the other of said ends.

34. (New) The microscope according to Claim 33 wherein said individual fibers are scrambled randomly.

35. (New) The microscope according to Claim 33 wherein said individual fibers are scrambled in a prescribed pattern.

36. (New) The microscope according to Claim 31 wherein the incident light forms a line.

37. (New) The microscope according to Claim 32 wherein said confocal mask is a slit.

38. (New) The microscope according to Claim 31 wherein said fiber bundle has a distal end and light from the distal end of the fiber bundle is imaged by said objective lens onto a sample, and remitted light from the sample is collected by said objective lens and coupled back into the fiber bundle.

39. (New) The microscope according to Claim 31 in which each end of the fiber bundle is index matched via a window material to reduce reflection from fiber ends.

40. (New) A method for decoding a scrambled image formed by an incoherent fiber bundle in a microscope insertable into a subject comprising the steps of:

raster scanning a focused light spot onto a first end of the fiber bundle;

sequentially reading out a corresponding fiber at a second end of said bundle; and

constructing a map of the first and second ends, whereby an image formed by light remitted into the second end can be unscrambled by the mapped relationship of the first and second ends.

41. (New) A method for decoding a scrambled image formed by an incoherent fiber bundle in a microscope insertable into a subject comprising the steps of:

illuminating a first end of the incoherent fiber bundle with a coded line pattern;

imaging corresponding fibers at a second end of said bundle; and

mapping of the first and second ends, whereby an image formed by light remitted into the second end can be unscrambled by a mapped relationship of the first and second ends.

42. (New) The method according to Claim 41 wherein said spatially coded pattern is a binary masked pattern.

43. (New) The method according to claim 41, wherein the coded line pattern is spatially coded.

44. (New) The method according to claim 41, wherein the coded line pattern is color-coded.